

# Rhodora

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### NOTES ON LESSER ANTILLEAN FERNS

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During the current preparation of a volume on the Pteridophytes for the forthcoming "Flora of the Lesser Antilles"<sup>1</sup>, at least five new species have come to light, and a number of new combinations have become necessary. The purpose of the present paper is to describe three of these new species,<sup>2</sup> and to make a total of 17 new combinations.

#### HYMENOPHYLLACEAE

**Trichomanes trigonum** Desv., var. **fimbriatum** (Backh.) Proctor, comb. nov., based on *Trichomanes fimbriatum* Backh., Cat. 12. 1861; Gard. Chron. 1862:44. Syn. *T. superbum* v.d.B., Ned. Kr. Arch. 5<sup>3</sup>:203. 1863 (not Backh., 1862).

#### CYATHEACEAE

**Cyathea hodgeana** Proctor, sp. nov.

Caudex 5 m. altus, 7.5 cm. diametro, gemma apicali squamis brunnescentibus nitidis eroso-ciliatis dense obtecta. Stipites atrobrunnei minutissime et sparse puberuli, inermes, basi paleis deciduis eis gemmae apicalis similibus obtecti. Laminae ovatae, bipinnato-pinnatifidae, ca. 1 m. longae. Rhachides primariae et secundariae brunneae et dense pallido-brunneo-furfuraceae; rhachidibus secundariis et costis

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supra dense brunneo-pubescentibus, subtus costis brunneas planas paleas numerosas ferentibus, et costulis minutas bullatas paleas pallido-brunneas ferentibus. Pinnae articulatae, anguste oblongae, usque ad 30 cm. longae et 11 cm. latae acuminatae, longe petiolulatae (petiolulis usque ad 1.5 cm. longis). Pinnulae lineari-oblongae, pinnatifidae, usque ad 5.5 cm. longae et 1.1 cm. latae, acutae vel subacuminatae, petiolulatae (petiolulis 1-2 mm. longis). Segmenta oblonga, usque ad 4 mm. longa et 2.5 mm. lata, apice rotundata vel obtusa, crenulata. Venae 4-5 ad latera, simplices vel uni-furcatae. Sori supramediani, lamina supra eis scrobiculata. Indusium nullum. Receptaculum parvum, capitatum, paraphyses capillares ferens.

TYPE from moist forests bordering the Pegoua River in vicinity of Deux Branches, Dominica, West Indies, *W. H. & Barbara T. Hodge 3420*, collected May 6 & 7, 1940 (Holotype in the Gray Herbarium, consisting of 3 sheets).

**Cyathea imrayana** Hook., var. **caribaea** (Jenm.) Proctor, comb. nov., based on *Cyathea caribaea* Jenm., Ferns B.W.I. & Guiana 57. 1898.

**Cnemidaria grandifolia** (Willd.) Proctor, comb. nov., based on *Cyathea grandifolia* Willd., Sp. Pl. 5:490. 1810.

#### POLYPODIACEAE

**Nephrolepis falcata** (Cav.) C.Chr., forma **furcans** (Moore in Nicholson) Proctor, comb. nov., based on *N. davallioides* [var. ?] *furcans* Moore in Nicholson, Dict. Gard. 2:445, fig. 682. 1885; Schneider, Book of Choice Ferns 2: 590-592, fig. 144. 1893. ?Syn. *N. exaltata* var. *monstruosa* v.A.v.R., Malayan Ferns 162. 1908. This entity is usually filed in herbaria as a form of *N. biserrata*, but the present writer considers this identification to be incorrect. It is now associated with *N. falcata* on the basis of comparison with New Guinea specimens identified as that species in the herbarium of the Arnold Arboretum. However, it should be noted that the type of *N. falcata* came from the Philippines, and differs from the New Guinea material in having a scaly rachis. A monographic study of these plants will probably demonstrate that the New Guinea and Philippines populations are at least varietally distinct. Forma *furcans* is definitely allied with the New Guinea taxon. According to Schneider, forma *furcans* was first introduced into European cultivation from Australia; the West Indian plants probably originated from



descendants of these Australian plants cultivated in England.

***Thelypteris muscicola* Proctor, sp. nov.**

Rhizoma erectum apice paleaceum, paleis ligulato-attenuatis, usque ad 8 mm. longis, 1-1.5 mm. latis, brunneis, sparse pubescentibus. Stipes plerumque 9-15 cm. longus, glaber. Lamina pinnato-pinnatifida, oblongo-lanceolata vel lanceolata, 45-80 cm. longa, 15-22 cm. lata, apice acuminata, basi abrupte angustata, cum pinnis perreductis 2-4-jugis. Rhachis et costae supra strigillosae, subtus fere glabrae; pilis omnibus acicularibus, non hamatis. Pinnae lineari-lanceolatae usque ad 2 cm. latae, sessiles, alte pinnatifidae. Segmenta oblonga, rotunda vel apice subacuta, plana, 3-4 mm. lata. Venae 6-10-jugae, simplices, segmentis basalibus exceptis. Sori supramediales ovales. Indusium ciliatum erectum margini longo cum vena conjunctum. Sporangia glabra.

TYPE from mossy woodland on upper west slope of Nevis Peak, Nevis, West Indies, elev. 2500-3000 ft., *Proctor 19354*, collected March 5, 1959 (Holotype in the Arnold Arboretum Herbarium; isotypes at the Institute of Jamaica and the State University of Utrecht).

This species differs from *T. germaniana* by its glabrous stipes and tissue beneath, by the lack of hamate hairs, and by the elongate, laterally-attached indusium. It differs from *T. hydrophila* by its very much greater size; by the longer, darker, less hairy rhizome-scales; by the rachis being nearly glabrous beneath, and lacking aerophores at the bases of the pinnae; and by the smaller indusium which lacks minute capitate glands. To no other West Indian species does it bear any near resemblance.

***Thelypteris antillana* Proctor, sp. nov.**

Rhizoma breve erectum dense paleaceum; paleis anguste deltoideo-lanceolatis, usque ad 8 mm. longis, spadiceis, pubescentibus aliquando dentatis. Stipes plerumque 5-22 cm. longus, basi paleaceo, undique puberulus et minute capitato-glandulosus. Lamina pinnato-pinnatifida, lanceolata usque ad 50 cm. longa, 17 cm. lata, apice acuminata, basi abrupte angustata, cum pinnis perreductis 1-3-jugis. Rhachis minute capitato-glandulosa; partibus omnibus undique minute pubescentibus, subtus pilis in parte hamatis. Pinnae lineari-lanceolatae, usque ad 1.5 cm. latae acuminatae, sessiles, alte pinnatifidae. Segmenta numerosa anguste oblonga acuta, margine revoluta 2-3 mm. lato. Venae 7-10-jugae, integrae. Sori rotundi, mediales vel supramediales. Indusium persistens, dense longi-ciliatum. Sporangia glabra.

TYPE from stunted elfin woodland on upper southwest spur of Verchild's Mountain, below Dodans (Dos D'Ans) Pond, St. Kitts, West Indies, elev. 2500-2700 ft., *Proctor 19587*, collected March 19, 1959



(Holotype in the Arnold Arboretum Herbarium; isotype at the Institute of Jamaica). Additional material: ST. KITTS, *Britton & Cowell 529*, from summit of Mt. Misery, collected in 1901 (NY, US); this number was reported with doubt as *Dryopteris oligocarpa* by C. Christensen, *Smiths. Misc. Coll.* 52: 371. 1909. A duplicate at the U. S. National Herbarium (perhaps the same sheet seen by Christensen) has been identified by C. V. Morton as *D. hydrophila*, but this material differs from the latter species in a number of significant details. DOMINICA, *W. H. & Barbara T. Hodge 1857*, from between Laudat and Freshwater Lake (GH).

This species is very closely related to *T. oligocarpa*, as shown especially by the nature of the hairs on the underside of the blade. It differs from that variable species, however, by its larger, much more chaffy rhizome-scales; by its medial or slightly supramedial (instead of nearly marginal) sori; and by its persistent, long-ciliate indusia. Comparison with various South American relatives of *T. oligocarpa* has failed to disclose any material that could be considered conspecific.

*T. antillana* averages about twice the size of *T. hydrophila*, and further differs from the latter in its puberulent and minutely capitate-glandular stipes, by lacking aerophores along the rachis at base of pinnae, by having more numerous veins per segment (usually 7 - 10 pairs instead of 5 - 6), and by the larger indusium on which none of the hairs are glandular.

***Thelypteris invis*** (Swartz) Proctor, corrected citation (based on *Aspidium invisum* Swartz, *Jour. Bot. Schrad.* 1800<sup>2</sup>:34. 1801. Syn. *Nephrodium invisum* (Swartz) Desv., *Mém. Soc. Linn. Paris* 6:257. 1827); incorrectly given as "(Desv.) Proctor" in *Rhodora* 61:306. 1959(1960). I am indebted to Mr. C. V. Morton for pointing out this necessary correction.

***Ctenitis protensa*** (Afz.) Copel., var. ***funesta*** (Kunze) Proctor, comb. nov., based on *Aspidium funestum* Kunze, *Linnaea* 9:96. 1834. Alston (*Kew Bull.* 1932:309) raised this entity to specific rank (as *Thelypteris*), but the present writer prefers to follow Christensen in associating it at the varietal level with the typically African *C. protensa*.

***Ctenitis excelsa*** (Desv.) Proctor, comb. nov., based on *Polypodium excelsum* Desv., *Mém. Soc. Linn. Paris* 6:243. 1827.



Syn. *Dryopteris excelsa* (Desv.) C.Chr., Ind. Fil. 264. 1905 (excl. syn.).

**Dicranoglossum desvauxii** (Klotzsch) Proctor, comb. nov., based on *Taenitis desvauxii* Klotzsch, Linnaea 20:431. 1847. Syn. *Eschatogramme desvauxii* (Klotzsch) C.Chr., Dansk Bot. Ark. 6(3):37. 1929. The generic name *Eschatogramme* was published as a *nomen nudum* and must be rejected in favor of *Dicranoglossum* J.Sm., Bot. Voy. Herald 232. 1854. This has been pointed out previously by Pichi-Sermolli, Webbia 9:365. 1953.

**Grammitis serricula** (Fée) Proctor, comb. nov., based on *Polypodium serricula* Fée, Gen. Fil. 238. 1852.

**Grammitis knowltoniorum** (Hodge) Proctor, comb. nov., based on *Polypodium knowltoniorum* Hodge, Amer. Fern Jour. 31(3):105, pl.1, figs. 4-6. 1941.

**Grammitis anfractuosa** (Kunze ex Klotzsch) Proctor, comb. nov., based on *Polypodium anfractuosum* Kunze ex Klotzsch, Linnaea 20:375. 1847. Syn. *Polypodium induens* Maxon, Bull. Torr. Bot. Club 32:75. 1905.

**Grammitis jubaeformis** (Kaulf.) Proctor, comb. nov., based on *Polypodium jubaeforme* Kaulf., Flora 6:364. 1823.

**Grammitis tenuicula** (Fée) Proctor, comb. nov., based on *Polypodium tenuiculum* Fée, Gen. Fil. 239. 1852.

**Grammitis taxifolia** (L.) Proctor, comb. nov., based on *Polypodium taxifolium* L., Sp. Pl. 1086. 1753.

**Grammitis pendula** (Swartz) Proctor, comb. nov., based on *Polypodium pendulum* Swartz, Prodr. Veg. Ind. Occ. 131. 1788.

**Grammitis sericeolanata** (Hooker) Proctor, comb. nov., based on *Polypodium sericeolanatum* Hooker, Sp. Fil. 4:221. 1862.

**Grammitis cultrata** (Willd.) Proctor, comb. nov., based on *Polypodium cultratum* Willd., Sp. Pl. 5:187. 1810.

**Grammitis mollissima** (Fée) Proctor, comb. nov., based on *Polypodium mollissimum* Fée, Mém. Foug. 11:47, pl.12, fig.2. 1866. — INSTITUTE OF JAMAICA, KINGSTON, JAMAICA, WEST INDIES.